Claims

What is claimed is:

1. A method for geographically referencing an improvement image comprising the steps of:

extracting image positions of at least two image reference points, the reference points depicting features that each have a known geographic position,

interpreting geographic positions for the features,

computing a geographic distance between the features,

determining a geographic direction between the features, and

obtaining a scale factor of the image.

2. The method of Claim 1, further comprising the step of displaying said improvement image.

3. The method of Claim 1, further comprising the step of marking at least two reference points on the improvement image with information indicating geographic position.

4. The method of Claim 1, further comprising the step of determining an image position for each of the reference points.

5. The method of Claim 1, further comprising the step of determining an image direction between the reference points.

6. The method of Claim 1, further comprising the step of determining an

improvement image reference translation.

7. The method of Claim 1, further comprising the step of determining an improvement image rotation angle.

8. The method of Claim 1, further comprising the step of determining an improvement image scale factor.

9. The method of Claim 1, further comprising the step of expressing the geographic positions in latitude and longitude.

10. The method of Claim 1, further comprising the step of expressing the geographic distance in nautical miles.

11. A method for converting an improvement image to a geographically referenced image comprising the steps of:

extracting image positions of at least two image reference points, the reference points depicting features that each have a known geographic position,

interpreting a geographic position for each of the features,

computing a geographic distance between the features,

determining a geographic direction between the features, and

obtaining a scale factor of the image.

12. The method of Claim 11, further comprising the step of displaying said geographically referenced image.

13. The method of Claim 11, further comprising the step of marking at least two points on the improvement image with information indicating a geographic position for each of the reference points.

14. The method of Claim 11, further comprising the step of determining an image position for each of the reference points.

15. The method of Claim 11, further comprising the step of determining an image direction between the reference points.

16. The method of Claim 11, further comprising the step of determining an improvement image reference translation.

17. The method of Claim 16, further comprising the step of translating the improvement image in accordance with the reference translation.

18. The method of Claim 11, further comprising the step of determining an improvement image rotation angle.

19. The method of Claim 18, further comprising the step of rotating the improvement image in an amount sufficient to compensate for the rotation angle.

20. The method of Claim 11, further comprising the step of determining an improvement image scale factor.

21. The method of Claim 20, further comprising the step of scaling the improvement image in an amount sufficient to compensate for the scale factor.

22. A method for combining an improvement image with geographically referenced information to produce a composite image, the method comprising the steps of:

extracting an image position for each of at least two image reference points, the reference points depicting features that each have a known geographic position,

interpreting a geographic position for each of the features,

computing a geographic distance between the features,

determining a geographic direction between the features,

obtaining a scale factor of the image,

determining an improvement image reference translation,

determining an improvement image rotation angle,

determining an improvement image scale factor, and

creating an output.

23. The method of Claim 22, further comprising the step of displaying said composite image.

24. The method of Claim 22, the output containing the improvement image reference translation.

25. The method of Claim 22, the output containing the improvement image rotation angle.

26. The method of Claim 22, the output containing the improvement image scale factor.

27. The method of Claim 22, further comprising the step of creating a composite image based on said output.

28. A system for geographically referencing an improvement image, the system comprising a memory storage device in communication with a processor, the memory storage device configured to store an improvement image, the processor configured to perform the steps of:

extracting an image position for each of at least two image reference points, the reference points depicting features that each have a known geographic position,

interpreting a geographic position for each of the features,

computing a geographic distance between the features,

determining a geographic direction between the features, and

obtaining a scale factor of the image.

29. A system for converting an improvement image to a geographically referenced image, the system comprising a memory storage device in communication with a processor, the memory storage device configured to store an improvement image, the processor configured to perform the steps of:

extracting an image position for each of at least two image reference points,

the reference points depicting features that each have a known geographic position,

interpreting a geographic position for each of the features,

computing a geographic distance between the features,

determining a geographic direction between the features, and

obtaining a scale factor of the image.

30. A system for combining an improvement image with geographically referenced information, the system comprising a memory storage device in communication with a processor, the memory storage device configured to store the improvement image and the geographically referenced information, the processor configured to perform the steps of:

extracting an image position for each of at least two image reference points, the reference points depicting features that each have a known geographic position,

interpreting a geographic position for each of the features,

computing a geographic distance between the features,

determining a geographic direction between the features,

determining an improvement image reference translation,

determining an improvement image rotation angle,

determining an improvement image scale factor, and

creating an output.